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DEVELOPMENT PROGRAM ENHANCEMENT SUGGESTIONS

(PROPULSION RELATED)

POTENTIAL INSTRUMENTATION DIFFICULTIES:

1. NASA develop standardized procedures for instrumentation installation.
2. NASA require use of existing/proven instrumentation where available.
3. NASA recognize the potential need for new instrumentation requirements early and recognizing the need for extended development, commence development activities early to engine initiation.

HAZARDOUS FLUID LEAKAGE:

1. Do technology work leading to "no leak" connection of separable connectors to avoid leakage. Impose on contractors.

PROPELLANT LOADING PRO- CEDURES AND OPERATIONS:

1. NASA standardize on method and procedures for this discipline.
2. Conduct supporting test as necessary.

PRESSURIZATION SYSTEM:

1. Develop a standardized pressurant gas heat source for tank pressurization. Design to operate in modular forms to account for various vehicle size, pressurant gas, etc., as may be required.
2. Review/improve on simulation capability for predicting tank pressure vs. time. Consider differing pressurant gas, propellant, tank size, volume, etc.

PROPELLANT MASS UNCERTAINTY:

1. Develop approach/procedures which standardizes this discipline.
2. Prepare specification requirement and initiate development program for simpler loading system. Prove by test.